

REMARKS

In view of the above amendments and following remarks, reconsideration of the objections and rejections contained in the Office Action of July 21, 2005 is respectfully requested.

The Examiner again rejected claims 1-3, 5, 16 and 17 as being indefinite, considering the language of “a sum of radial lengths of said light source and said spectroscope being larger than a radius of the workpiece” to render the scope of the claims unascertainable. It is respectfully submitted that Applicants’ comments as previously presented are in fact correct, and that the scope is not unascertainable or indefinite. However, to attempt to resolve this issue, the above proposed amendments to independent claims 1, 16 and 17 have been proposed.

Thus, each of claims 1, 16 and 17 is proposed to be amended to recite that the sum of the radial lengths of the light source and the spectroscope is larger than a radius of the holding surface of the top ring. That this is in fact the case is clear from the specification and drawings as originally filed. Note for example Fig. 1 and Fig. 3, as well as the discussion for example in paragraph 31 spanning pages 7 and 8 of the specification. Note that literal support has been provided for the language of the claims in the specification. Thus, the sum of the radial length of the light source and the spectroscope is defined and required by the claim to be larger than that of the holding surface of the top ring, which aspect is also defined in the claim. Thus, the relative size between two different parts of the apparatus defined by the claim is what it is defined by the claim, and is clearly a definite limitation.

It is respectfully submitted that entry of the above amendments is appropriate at this point in the prosecution. It was not believed that the additional limitations to the claims were previously necessary, for the reasons as were set forth in the response filed April 25, 2005. Further, the above amendments clearly address the formal issues raised by the Examiner set forth in section 3 on page 2 of the Office Action, resolving the indefiniteness issue raised by the Examiner. The above amendments are not submitted to raise new issues, as the relation between the sum of the radial lengths and the size of the holding surface for holding the workpiece is essentially the same issue as addressed by the Examiner in considering Yamane to meet this limitation in the second paragraph in

section 5 on page 3 of the Office Action. Looking at Yamane, there does not appear to be any difference in size between any holding surface that might be disclosed or the wafer, particularly in view of the schematic illustration. Further, the above amendments clearly define over the prior art cited by the Examiner.

Yamane discloses a polishing end point detecting device 12 that uses light intensity to measure a film thickness of a wafer W. However, the polishing end point detecting device 12 of Yamane sends light to only a limited area of the wafer W. The film thickness is only measured at a small area of the wafer W.

The Examiner takes the position in section 5 of the Office Action that the “sum of radial lengths of the light source (32) and the spectroscope (34) is larger than a radius of the workpiece, see Fig. 1.” However, the Examiner’s conclusion as to what is shown by Fig. 1 is without proper basis in the Yamane.

In the present invention, the film thickness measuring device, which includes the spectroscope and the light source, is embedded in the polishing table. This is not the case in Yamane, as the Examiner notes. The sum of the radial lengths is important for this reason with the present invention, but has no relevance to Yamane.

The entirety of the illustration of Yamane is purely schematic. There is no indication whatsoever as to what size either the light source unit 32 or the spectroscope 34 might have. They are simply illustrated by boxes in the drawing; their intended size is not known. Their intended size is not addressed by the reference. It is improper for the Examiner to conclude that the sum of the radial lengths of these two devices is larger than either the radius of the workpiece or the holding surface of the top ring because there is no proper indication from Yamane what size these elements in fact are.

It is improper for the Examiner to make any conclusion with respect to size from elements that are simply illustrated by boxes in a schematic drawing. One of ordinary skill in the art would take no teaching one way or the other from such illustration. The Examiner’s attention is drawn to MPEP §2125, 2nd section: The portions of features in a drawing are not evidence of actual proportions when drawings are not to scale. “When the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value . . . “it is well established that patent drawings do not define the precise proportions of the

elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.”” MPEP §2125, citing *Hockerson-Halberstadt, Inc. v. Avia Group International*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000).

Accordingly, it is respectfully submitted to be clear that all of the rejections that are based upon Yamane as teaching the sum of the radial lengths of the light source and the spectroscope must be withdrawn.

The secondary references to Wiswesser et al. and Hiyama et al., U.S. Patent 5,838,447, also do not appear to address this issue.

With the present invention, with the sum of the radial lengths of the light source and the spectroscope of the film thickness measuring device being larger than the radius of the holding surface of the top ring, the film thickness measuring device can scan the entire surface of the workpiece according to rotation of the top ring and the polishing table. More specifically, because the film thickness measuring device is embedded in the rotatable polishing table, the entire surface of the workpiece can be scanned with the polishing table making only one revolution. Such an arrangement and such capability is neither taught nor suggested by either Yamane, Wiswesser or Hiyama, or any possible combination thereof.

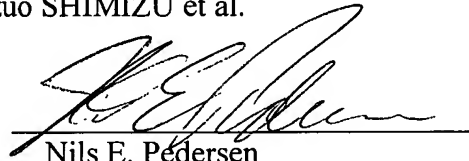
From the above, it is respectfully submitted that the above amendments should be entered, as they clearly serve to place the present application into condition for allowance. It is respectfully submitted that they should be entered in any case, as a matter of right, as the final rejection made by the Examiner must be withdrawn. The Examiner’s basis of concluding that the sum of the radial lengths of the light source and the spectroscope is larger in Yamane than a radius of the workpiece is improper as a matter of law, and thus all rejections based on Yamane must be withdrawn.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance, and the Examiner is requested to pass the case to issue. If the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact Applicants' undersigned representative.

Respectfully submitted,

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By:

A handwritten signature in black ink, appearing to read 'N. E. Pedersen', written over a horizontal line.

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